Proceedings of SPIE - The International Society for Optical Engineering 2004 vol.5402, pages 355-363

Photon echo as a method of a spectroscopy of molecular Iodine vapors in cooling supersonic molecular jets

Popov I., Samartsev V.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The article is devoted to photon echo detection in molecular iodine vapors cooled under supersonic jets. This phenomena could be used in spectroscopic diagnosis of the jets. The methodic, results and the possibilities of their practical application in the development of the optical echo-processors are discussed.

http://dx.doi.org/10.1117/12.562272

Keywords

Cooling supersonic molecular jets, Exciting laser pulses, Iodine vapors, Laser excitement, Molecular gas, Photon echo, Quantum transition, Spontaneous transition, Superpositional state